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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,781	04/16/2004	Jim Holtorf	042933/274650	1296

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EXAMINER

CHIANG, JACK

ART UNIT PAPER NUMBER

2642

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/826,781	Applicant(s) HOLTORF ET AL.	
	Examiner Jack Chiang	Art Unit 2642	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/30/04</u> . | 6) <input type="checkbox"/> Other: _____ |

CLAIMS

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 10-13, 18, 25-27, 32-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakagawa (JP 404277958A).

Regarding claim 1, Nakagawa shows a bi-stable member for a mobile station (figs. 1-6) comprising:

A first part (5);

A second part (6);

At least one foldable portion (4) comprised of bi-stable materials configured to foldably couple the first part (5) to the second part (6, see fig. 4), the at least one foldable portion (4) is further configured to bias a mobile station (figs. 1-6) between a folded position (fig. 4) and an open position (fig. 5), and the at least one foldable portion (4) includes a substantially flattened transverse cross-section in the folded position (see 4 in fig. 4) and a substantially C-shaped transverse cross-section in the open position (see 4 in fig. 5).

Art Unit: 2642

Regarding claim 18, Nakagawa shows a foldable device (figs. 1-6) comprising:

A first functional component (5);

A second functional component (6);

A communication member (electrical connection between 5-6 for microphone and speaker) for electrically connecting the first and second components (5-6);

A bi-stable member (4) for biasing the first and second components (5-6) into an open position (fig. 5 remains open) and a folded position (fig. 4 remains folded), the bi-stable member defining at least one foldable portion (4) having a substantially flattened transverse cross-section in the folded position (see 4 in fig. 4) and a substantially curved transverse cross-section in the open position (see 4 in fig. 5).

Regarding claim 32, Nakagawa shows the steps of:

Providing a bi-stable member (4) for biasing the mobile station (figs. 1-6) between an open position (fig. 5 remains open) and a folded position (fig. 4 remains folded), the bi-stable member defining at least one foldable portion (4) having a substantially flattened transverse cross-section in the folded position (see 4 in fig. 4) and a substantially C-shaped transverse cross-section in the open position (see 4 in fig. 5);

Coupling a first functional component (5) to the foldable portion of the bi-stable member (4);

Coupling a second functional component (6) to the foldable portion of the bi-stable member (4).

Art Unit: 2642

Regarding claims 10-13, 25-27, 33, Nakagawa shows:

The first functional component (5);

The second functional component (6);

The foldable portion (4);

A communication member (electrical connection between 5-6 for microphone and speaker);

The first functional component (5) is substantially adjacent to the second functional component (6) in the folder position (fig. 4);

The first functional component (5) is configured relative to the second functional component (6) to define an operating angle in the open position (fig. 5);

The angle is substantially between 90°-180° or 150°-180° (fig. 5, note: 4 is adjustable).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-9, 14-17, 19, 21-24, 28-31, 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa in view of Daton-Lovett (US 6217975).

Regarding claim 2, Nakagawa shows the foldable portion (4).

Art Unit: 2642

Nakagawa differs from the claimed invention in that it does not show the detail of the foldable portion, such as the opposed lateral edges and the stiffening portions, a median region etc.

However, Daton-Lovett, in telecommunications or computer cable ducting, teaches providing a foldable portion having the opposed lateral edges (two edges in fig. 6) and the stiffening portions (right and left curved portions in fig. 6), a median region (bottom portion in fig. 6), the stiffening portions are configured substantially planar with the median region in the folded position (fig. 4a) and non-planar in the open position (figs. 4b, 6).

Hence, the concept of providing a foldable portion in a mobile telecommunication station is well taught by Nakagawa, although the detail of the Nakagawa's foldable portion which also functions as cable ducting between the microphone and the speaker was not shown, it would have been obvious for one of ordinary skill in the art to adapt Daton-Lovett's cable ducting in Nakagawa, such that the combination would provide a foldable cable ducting portion which is extendible and strong in tension in a mobile telecommunication station (col. 1, lines 6, 24-25, col. 7, lines 39-48 in Daton-Lovett).

Regarding claims 3-9, 14-17, 19, 21-24, 28-31, 34, the combination of Nakagawa and Daton-Lovett shows:

The foldable portion having a resilient substrate layer and a plastically deformable layer (5.1-5.2 in Daton-Lovett);

Art Unit: 2642

The plastically deformable layer comprises a polymer and the resilient substrate layer comprises a strip of metal (col. 5, lines 42-67 in Daton-Lovett);

A plurality of pre-stressed elements which are aligned substantially axially or transversely (fig. 2) and are adjacent the deformable layer (col. 5, lines 42-67 in Daton-Lovett);

A protective member (i.e. upper portion of the foldable portion 4 in Nakagawa; or 5.1 in Daton-Lovett);

The communication member which is enclosed or adjacent a neutral bending line within the foldable portion (electrical connection between 5-6 for microphone and speaker in Nakagawa; col. 7, lines 39-40, 45-46 in Daton-Lovett).

5. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa in view of Olsen (US 4847818).

Regarding claim 20, Nakagawa has a communication member (electrical connection between 5-6 for microphone and speaker).

Nakagawa differs from the claimed invention in that it does not show that the communication members comprises an antenna.

However, Olsen teaches providing a communication member (13-14) which provides electrical connection between the microphone and the speaker and also comprises an antenna (col. 3, lines 30-32 in Olsen).

However, it would have been obvious for one of ordinary skill in the art to modify Nakagawa's communication member to comprise an antenna as taught by Olsen, because both Nakagawa and Olsen are intended to be compact, and

Art Unit: 2642


having the conductive communication member to carry multiple functions would allow the device to be compact as shown by both Nakagawa and Olsen.

(**NOTE:** this application may contain potentially restrictable issues between an apparatus (claims 1-31) and method of manufacturing (claims 32-34).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack Chiang whose telephone number is 571-272-7483. The examiner can normally be reached on Mon.-Fri. from 8:00 to 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on 571-272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JACK CHIANG
PRIMARY EXAMINER